PHOTOGRAPH THIS SHEET

AD A083543

DTIC ACCESSION NUMBER

LEVEL

1

INVENTORY

FTD-ID(RS)T-0578-79

DOCUMENT IDENTIFICATION

DISTRIBUTION STATEMENT A
Approved for public release:
Distribution Unlimited

DISTRIBUTION STATEMENT

ACCESSION FOR		
NTIS	GRA&I	☑
DTIC	TAB	☐
UNANNOUNCED		☐
JUSTIFICATION		
BY		
DISTRIBUTION /		
AVAILABILITY CODES		
DIST	AVAIL AND/OR SPECIAL	
A		

DISTRIBUTION STAMP

DTIC
ELECTE
S APR 24 1980 D
D

DATE ACCESSIONED

DATE RECEIVED IN DTIC

PHOTOGRAPH THIS SHEET AND RETURN TO DTIC-DDA-2

DTIC FORM OCT 79 70A

DOCUMENT PROCESSING SHEET

FTD-ID(RS)T-0578-79

FOREIGN TECHNOLOGY DIVISION

ANNIVERSARIES AND PROSPECTS

EDITED TRANSLATION

FTD-ID(RS)T-0578-79 25 April 1979

MICROFICHE NR: FTD-79-C-000580

ANNIVERSARIES AND PROSPECTS

English pages: 4

Source: Astronautyka, Nr. 2, 1977, pp. 1-2

Country of Origin: Poland
Translated by: John Hanus
Requester: FTD/SDSY

PREPARED BY:

TRANSLATION DIVISION
FOREIGN TECHNOLOGY DIVISION
WP-AFB, OHIO.

U. S. BOARD ON GEOGRAPHIC NAMES TRANSLITERATION SYSTEM

Block	Italic	Transliteration	Block	Italic	Transliterati
А а	*А а*	A, a	Р р	*Р р*	R, r
Б б	*Б б*	B, b	С с	*С с*	S, s
В в	*В в*	V, v	Т т	*Т т*	T, t
Г г	*Г г*	G, g	У у	*У у*	U, u
Д д	*Д д*	D, d	Ф ф	*Ф ф*	F, f
Е е	*Е е*	Ye, ye; E, e*	Х х	*Х х*	Kh, kh
Ж ж	*Ж ж*	Zh, zh	Ц ц	*Ц ц*	Ts, ts
З з	*З з*	Z, z	Ч ч	*Ч ч*	Ch, ch
И и	*И и*	I, i	Ш ш	*Ш ш*	Sh, sh
Й й	*Й й*	Y, y	Щ щ	*Щ щ*	Shch, shch
К к	*К к*	K, k	Ъ ъ	*Ъ ъ*	"
Л л	*Л л*	L, l	Ы ы	*Ы ы*	Y, y
М м	*М м*	M, m	Ь ь	*Ь ь*	'
Н н	*Н н*	N, n	Э э	*Э э*	E, e
О о	*О о*	O, o	Ю ю	*Ю ю*	Yu, yu
П п	*П п*	P, p	Я я	*Я я*	Ya, ya

*ye initially, after vowels, and after ъ, ь; e elsewhere.
When written as ë in Russian, transliterate as yë or ë.

RUSSIAN AND ENGLISH TRIGONOMETRIC FUNCTIONS

Russian	English	Russian	English	Russian	Engli
sin	sin	sh	sinh	arc sh	sinh^{-1}
cos	cos	ch	cosh	arc ch	cosh^{-1}
tg	tan	th	tanh	arc th	tanh^{-1}
ctg	cot	cth	coth	arc cth	coth^{-1}
sec	sec	sch	sech	arc sch	sech^{-1}
cosec	csc	csch	csch	arc csch	csch^{-1}

Russian	English
rot	curl
lg	log

ANNIVERSARIES AND PROSPECTS

In April, 1977 it will have been 16 years since the first launching of a man into space flight. That launch took place on the territory of the Soviet Union, and the first cosmonaut was Yuriy Gagarin. In October, 1977 we will observe the twentieth anniversary of the Space Age, which began with the launching of the first artificial Earth satellite - "Sputnik 1". It, too, was Soviet. Space flights and their development remain inseparably linked with the initiative and achievements of the USSR, with the blossoming of science and technology in the land of the Soviets.

The development of Soviet space research has just entered a new phase, which is reflected in the broadening and deepening of cooperation in this field, especially with the socialist countries. Poland has for a long time worked together with Soviet specialists in the field of astronautics. This research is done within the framework of a special organization called "Interkosmos", which is attached to the USSR Academy of Sciences. The agreement on cooperation by the socialist countries in this organization was signed in April, 1967. So this year marks the tenth anniversary of this

important political and scientific-and-technical event.

Polish space research in past years has been concentrated on problems of astrophysics, satellite geodesy, meteorology, space communications, and bioastronautics. In physics work has been done on the structure and dynamics of the ionosphere and their connections with solar activity (which also has significance for radiocommunications on Earth), on solar X-rays, solar radio-wave bursts, solar corona models, cosmic rays, and inert hydrogen in interplanetary space.

This research was carried out with satellites of the "Interkosmos" series, as well as by other means. "Interkosmos 6" contained an emulsion unit and ionization calorimeter for recording the composition and identifying the spectrum of primary cosmic radiation. "Interkosmos Kopernik 500" (the ninth in the series) contained a radio-wave spectrograph for research on solar radio-wave bursts, so-called Type III radiation. The "Vertikal" rockets had X-ray spectrometers and camera obscura units for studying the spectrum and decay of solar X-ray radiation.

Certain problems of solar physics have been studied from results obtained by Soviet scientists on the basis of measurements of this radiation by "Interkosmos 4" and "Interkosmos 7". There have also been theoretical studies of the physics of the interplanetary environment using three-dimensional models of the solar wind.

In the field of satellite geodesy, satellite orbits have been observed at stations of the Agricultural Academy in Olsztyn, the Astronomical Observatory of Adam Mickiewicz in Poznan, and the Polish Academy of Sciences Institute of Geophysics in Borowiec. These

studies dealt with, among other things, the influence of the Earth's gravitational field on satellite orbits, along with other influencing factors (perturbations by the Moon and the Sun, radiation pressures, the resistance of the ambient environment). Work has been done on the calculation of figures of the Earth. Other geodetic calculations have also been done, and certain parts of ground measuring apparatus have been developed.

In the field of space communications there has been work on practical problems associated with operation of the space communications network of the organization "Intersputnik", which embraces the socialist countries and was formally created in November, 1971. Also in operation is a ground communications station at Psary near Kielc, which was started up in July, 1974 to receive and send television programs. This station is also expected to assist in radiotelephone calls.

In the area of space meteorology, data have been collected from meteorological sounding rockets and satellites of the Soviet "Meteor" series and interpreted. Scientific activity was concentrated on, among other things, the characteristics of stratospheric circulation and its connections with solar activity.

There has been energetic work in bioastronautics. This included laboratory research as well as research involving satellites, such as "Kosmos 782". The bioastronautical work concerned the influence of gravitational changes on the body and on biological rhythms, the effects of ionizing radiation, etc.

Polish research has been and is being conducted in various institutions of the Polish Academy of Sciences, higher educational in-

stitutions, etc., and is coordinated by the Polish Academy of Sciences Committee on Space Research and Utilization, under the leadership of Prof. Stefan Piotrowski. 1976 saw the creation of the Polish Academy of Sciences Space Research Center, whose director is Asst. Prof. Dr. Hab. Stanislaw Grzedzielski. Polish activity in the area of space research is concentrated at the Center.

In Moscow in July, 1976 the socialist countries signed a new agreement on cooperation; it corresponded to the greatly increasing significance of astronautics for science, technology, and economics, and also to the expanded technical base of space research. As a result of this agreement, representatives of the people's democracies will take part in manned flights, on which they will use Soviet craft. Among the future cosmonauts there will be Poles. In this way, in the era of space shuttles and developing space stations, we shall gain full access to space. This is a special occasion and a gift which our country must enjoy to the fullest, by joining in the worldwide effort to conquer the cosmos, on a considerably greater scale than before.

DISTRIBUTION LIST

DISTRIBUTION DIRECT TO RECIPIENT

ORGANIZATION		MICROFICHE
A205	DMATC	1
A210	DMAAC	2
B344	DIA/RDS-3C	9
C043	USAMIIA	1
C509	BALLISTIC RES LABS	1
C510	AIR MOBILITY R&D LAB/FIO	1
C513	PICATINNY ARSENAL	1
C535	AVIATION SYS COMD	1
C591	FSTC	5
C619	MIA REDSTONE	1
D008	NISC	1
H300	USAICE (USAREUR)	1
P005	DOE	1
P050	CIA/CRB/ADD/SD	2
NAVORDSTA (50L)		1
NASA/KSI		1
AFIT/LD		1
LLL/Code L-389		1
NSA/1213/TDL		2

ORGANIZATION		MICROFICHE
E053	AF/INAKA	1
E017	AF/RDXTR-W	1
E403	AFSC/INA	1
E404	AEDC	1
E408	AFWL	1
E410	ADTC	1
	FTD	
	CCN	1
	ASD/FTD/NIIS	3
	NIA/PHS	1
	NIIS	2